

## Time to Count Gas Cylinders

*The following statement has been supplied by M.M. Craige, Purchasing Manager, Materials Management Department.*

As an integral part of the University's gas cylinder management system, representatives of the firm of Medigas Alberta Ltd. will be on campus during the week of 4 to 8 May. The purpose of their visit is to complete a campus-wide count of all Union Carbide (Linde) compressed gas cylinders in the University's possession.

To ensure an accurate count, team members will require access to all campus buildings. It is anticipated that the count will not involve any significant disruption of day-to-day activities on campus.

While performing the count, each supplier representative will be carrying identification cards issued by the University. □

## Public Affairs Gains Another Line of Communication

The Office of Public Affairs has an MTS account. In the interests of a smooth flow of information, contributors to *Folio* can send details of coming events to Tamie Heisler whose I.D. is TJMH. □

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University of Alberta

# FOLIO

University of Alberta

16 April 1987

## Board of Governors

On 10 April, the Board of Governors approved a preliminary operating budget of \$242,700,000 for 1987-88.

Funding from the provincial government includes an operating grant of \$206,671,361 (a 3 percent cut from 1986-87) and a total capital grant of \$18.7 million (a 36.5 percent cut from last year).

Faced with a shortfall and with a commitment to a balanced budget, the University will raise tuition fees by 10 percent, effective 1 September 1987, and charge a library and computing services fee of \$30 per term for full-time students (\$10 per term for part-time students, and \$5 for each of the Spring and Summer Sessions for both part- and full-time students).

### Housing Rates Hiked

The Board passed a motion to increase accommodation rates

(except for small rooms at Faculté Saint-Jean and apartments in HUB) for all housing operated by Housing and Food Services. Most units will be increased by 3 percent. The Board's Finance Committee also proposed that the application fee for the contract residences (Faculté Saint-Jean, Lister Hall and Pembina Hall) be increased from \$50 to \$150. Board members passed the motion which stipulates that the fee, less a \$50 charge, will be refunded for any application which is cancelled prior to 15 July of the year in which the application is made. In addition, the Board approved increased parking fees for 1987-88. Parking in reserved zones will rise by 4 percent to \$26 for those with a plug-in, and a 4.5 percent increase (\$23) for an area without a plug-in.

Revisions to the schedule of general and special fees also

received Board approval. Effective 1 September, special deferred examination or re-examination fees will be increased \$5 to \$80; outside examination centres will increase costs by \$5 to \$35; graduate re-admission will cost \$6 more at \$106; and the transcript fee goes up \$1 to \$3. As of 1 May, the writing competency test will cost \$20 and the English Remediation Program \$75.

### Building Committee Report

The Board approved spending of up to \$785,000 for construction of the Glen Sather Sports Medicine Clinic but deferred the motion for one year until funds are available. The Board also endorsed the committee's motion for amendments to the University's Traffic and Parking Regulations for 1987-88. □

## Gary Horlick, S.K. Malhotra: McCalla Professors, 1987-88

The research interests of Gary Horlick (Chemistry) are in the general area of analytical spectroscopy, with emphasis on the development and application of new methods and systems for spectrochemical analysis.

During Dr. Horlick's McCalla year, several new initiatives are planned for a number of the projects now under way in his research group of 15 (14 PhD graduate students and a postdoctoral fellow).

One long-term interest has been the development and application of photodiode array based spectrometers for atomic emission spectrometry. Over the next year, the group plans to develop a comprehensive digital data acquisition and processing system

for their photodiode array spectrometer.

Another project is in inductively coupled plasma-Fourier transform spectrometry (ICP-FTS) and involves characterizing a new mirror drive system, and testing novel pre- and post-dispersion sub-systems for their applicability to ICP-FTS. New analysis schemes unique to ICP-FTS will be developed, along with a human processor interface (HPI) specific to ICP-FTS.

New projects in inductively coupled plasma-mass spectrometry (ICP-MS) include designing a direct sample insertion system, and investigating the use of mixed gas ICPs for ICP-MS.

Finally, as part of a continuing interest in the development of

intelligent spectrochemical instrumentation, Dr. Horlick and his group are developing a closed loop system that should be able to perform the initial preparation of samples and standards; then, on the basis of preliminary results, prepare further solutions in a refinement of those results.

### S.K. Malhotra

S.K. Malhotra (Zoology) will spend his McCalla year working with monoclonal antibodies (Mabs)—raised in his own laboratory—to probe the molecular organization of the brain. (The two most fundamental problems in contemporary biology are the organization of the central nervous

*Continued on page two*

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system, and the processes that underly its development.)

Dr. Malhotra anticipates that his studies will not only increase our understanding of the molecular organization of the brain, but will also lead to comprehensive characterization of two Mabs (J1.31 and 6B9) in which there is a commercial interest as cell-type markers. (Eventually, the Mabs could be used for basic as well as diagnostic research on the brain.)

Using Mab J1.31, Dr. Malhotra discovered a new protein in the type of brain cells called astrocytes (which are implicated in various functions not yet well understood, including central nervous system reaction to injury—such as multiple sclerosis). Mab J1.31 could serve as a valuable marker for these cells. But further studies of the protein are necessary. This work should lead to a complete characterization of Mab J1.31, and aid researchers in understanding the molecular organization of astrocytes in the brain.

Further biochemical characterization of Mab 6B9 should also aid understanding of developmental processes in the central nervous system. □



Carolynne Poon (Special Collections) describes how Pop artist Larry Rivers "built" a book around a Kenneth Koch sonnet. The piece is one of several dozen artists' books currently on display in the Special Collections Library. John Charles, Special Collections Head, says the exhibition documents a "major step in book evolution." Well worth a visit. (Basement, Rutherford South, until 29 May.)

## Wein to Head Boreal Institute for Northern Studies

Ross Wein has been appointed Director of the Boreal Institute for Northern Studies for an initial period of five years, subject to renewal, effective 1 July 1987.

Dr. Wein is currently Professor of Biology and Director of the Fire Science Centre at the University of New Brunswick. His research interests focus on post-fire revegetation and nutrient changes, ecological fire intensity as it relates to organic matter soil loss, plant species survival, and effects of burning in wetlands.

Dr. Wein's travels in conjunction with his research have taken him to fire research units in the Soviet Union, China, New Zealand, Australia, and East Africa.

He received his baccalaureate and master's degrees from the University of Guelph and obtained his doctorate at Utah State University. During his National Research Council Postdoctoral Fellowship (1969-71), Dr. Wein studied at the University of Alberta. He joined the biology department at the University of New Brunswick in 1972.

In addition to the directorship, Dr. Wein will also hold an appointment (on a one-third basis) in the Faculty of Agriculture and Forestry as a Professor of Forest Science, and he will be an Adjunct Professor in the Department of Botany. □

## Computerese With a Capital C

The following "gem" was found in a computer users' manual and noted in the New Jersey-based newsletter "communication briefings:"

"The rationale behind this is related to our design of possibilistic software which parallels the sub-cognitive thought processes in an assistive manner, rather than concentrating on development of probabilistic and deterministic solutions presented without necessity for the user's final decision point." □

## FOLIO

### Deadlines:

**Notices of coming events:** 9 a.m. three weeks in advance of desired publication date.

**Classified advertisements:** 3 p.m. one week in advance of desired publication date. This date also serves as the deadline for cancellation of advertisements. Advertisements cost 30 cents per word with no discount for subsequent insertions. There is a maximum limit of 30 words and a minimum charge of \$1.50. Contributors' corrections will be assessed at \$1.50 for each line in which an insertion is made. Advertisements cannot be accepted over the telephone. All advertisements must be paid for in full at the time of their submission. **Display advertisements:** 3 p.m. one week in advance of desired publication date. Contact Public Affairs for sizes, rates and other particulars.

The editor reserves the right to select, edit and position submitted copy. Views expressed in *Folio* do not necessarily reflect University policy.

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of  
Alberta

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## Department of Educational Foundations Celebrates 25th Anniversary

The Department of Educational Foundations was established in 1961 with B.E. Walker as Chairman and an initial staff of four other professors. It is noteworthy that to date, 45 people have graduated from the department at the doctoral level and 140 at the master's level in the fields of History, Philosophy, Sociology, Anthropology, and Intercultural and Comparative/International Education. The professional full-time academic staff, including three fellows, now totals 24.

During the current academic year, more than 2,500 students registered in the department's undergraduate courses. The department also houses the Sandercock Library, a special collection of school textbooks, and the Centre for International Education and Development, which has obtained approximately \$500,000 in external grants for international projects in the past two years. The *Canadian Journal of Education*, now in its 14th year, is one of a number of publications sponsored by the department.

Last fall, the department planned a variety of special events to

celebrate its 25th birthday, including a series of displays and a departmental chronology prepared by Professor Emeritus H. Pierce. A number of faculty and students are contributing articles to a major study of the *History of Education in the Northwest Territories and Alberta*, co-edited by Dean R.S. Patterson and N. Kach, that is scheduled for publication this fall. Approximately \$19,000, including matching grants, has been donated by current and former faculty and students to an Educational Foundations Graduate Students' Scholarship Fund. It is expected that the fund will reach its target of \$25,000 by the end of the year.

In celebration of its 25th anniversary, the department will also be hosting a conference on "The State and Future of Education" (29 April to 1 May.) All graduate students of the department from 1961 to the present, as well as others associated with the department over this period, are invited to attend and to submit papers. Those wishing to obtain information on the conference and other commemorative activities, should contact N. Kach at 432-5671 or R. Carney at 432-3726. □

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## Early Retirement Incentive Program for Support Staff

To facilitate position reduction, while minimizing the effect on University support staff, the University has approved a one-time only Early Retirement Incentive Program.

The minimum eligibility for participating in the program requires that support staff have attained age 55 and have five (5) years of pensionable service under the Public Service Pension Plan. Both of these requirements must be attained by 31 March 1988. Support staff who are now age 55 or older, with five or more years of pensionable service, are now eligible for this program.

The program is available to eligible University support staff for the period 15 April 1987 to 31 March 1988. Participation in the program is voluntary.

University staff who are now eligible to participate in this program will have until 30 June 1987 to submit their applications. The date of retirement from University employment must be no earlier than one month and no later than two months from the date that the application form is submitted to Personnel Services and Staff Relations.

University support staff who are not eligible to retire at this time but become eligible on or before 31 March 1988 may participate in the program provided that their retirement date is on or before 31 March 1988. Eligible staff members who give notice to retire under the terms of the University Early Retirement Incentive Program for Support Staff will receive:

1. Pension entitlement under the Public Service Pension Plan.
2. In addition to pension entitlement, eligible participants will receive a lump sum payment of from 3 to 12 months of salary based on the age of the employee.
3. Continued participation in University group benefit plans, including Alberta Health Care, group life insurance and dental plan. Coverage for these benefit plans will continue for five years after retirement date or until age 65, whichever comes first.

Information regarding the terms and conditions of this program have been mailed to eligible staff. For additional information, call Louise Walden, Personnel Services and Staff Relations Information Systems Coordinator, 432-5399. □

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## Why Shouldn't You Rely on TV For Your News?

Reliance on television alone "limits your knowledge of what's really happening out there," says Associate Professor of Sociology Caterina Pizanias.

But what about the discerning viewer who watches several channels?

"Reality gets bent, for the medium's benefit," she argues. "Read newspapers, magazines, books. You have to try more than one or two sources, if you want to be informed."

Born in Athens during the civil war, Pizanias left Greece just before the 1967 military junta.

"For a handful of years before Greece experienced a cultural and political renaissance," she says, describing the struggle to create a new cultural identity, free of its classical past, without denying it.

"Those were the years of our best poems, pictures and songs."

Her main interest lies in the relationship between art and

knowledge in contemporary society. To understand this, she's read extensively in philosophy, cultural and philosophical anthropology, and latterly in the sociology of knowledge. Hence her interdisciplinary approach to

Public Opinion and Mass Communications, a heavily-subscribed third-year undergraduate course.

"The subject demands it, because of its many inter-related concepts like structure, institutions and

power. Students are becoming more interested in mass-mediated cultural phenomena," says Pizanias. □

Stories reprinted from Q and A, published by the University's Office of Public Affairs.

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## What Use is Marx in Today's World?

His predicted revolutions never materialized. His writing often contradicts itself. And his followers fight as hard among themselves, as with their opponents. "But Marx's intellectual influence is comparable with Darwin's," says Derek Sayer, a Marx scholar who last year joined the University of Alberta's Sociology Department.

Sayer is best known for his co-authorship with Philip Corrigan of *The Great Arch*, a history of state formation in Britain, ("Best work of historical sociology to appear in English in the last decade":

*Canadian Journal of Sociology and Anthropology*).

Sayer sees his role as uncovering the "hidden" history that underlies the "natural" order of things. "It behoves us to remember that the 'rights of freeborn Englishmen,'" he writes in *The Great Arch*, "were emphatically rights of (some) freeborn, English, men."

Despite Marx's intellectual stature, as a sociological historian he remains far less popular in North America than in Britain, according to Sayer. Undergraduate texts written on this continent tend

"with a few honorable exceptions" to be either partisan, or hostile—"and often quite ignorant." The English-born professor is now working on a major new anthology of Marx's writings, to help correct the defect.

"I don't think of *Kapital* as Marx's Bible," he says. "If it is to be of use, it must be developed. And that includes criticizing it."

Sayer's *The Violence of Abstraction*, a critique of orthodox Marxism, is published this month by Blackwell. □

## Beware the Slime That Steals Bikes

The snow's still lying in the shady bits of campus, but bike thieves have already stolen four machines, Campus Security reports.

"Last year they stole 43, compared with 54 the previous year," says Ralph Oliver, Chief Security Officer. "We hope this means bike theft is being deterred."

But a *Folio* survey indicates that University bike-owners are mighty optimistic where security is

concerned. Tiny padlocks, cheap cable and chain locks are still in widespread use. "A pair of sidecutters would go through most of these, like a knife through cheese," commented Oliver. "Look at your bike as an investment," he advises. "What would it cost you to replace it, at today's prices?"

Campus Security offers a free engraving service that will mark your bike permanently for positive

identification, should it be stolen and later recovered. You need a driver's licence, or student's ID number for this.

Call Campus Security (432-5252) for information, or to see their display of U-shaped shackle locks, the type now considered best protection against those miserable wheel-stealers.

May their bones rot. □



Jim Newman of Campus Security engraves permanent ID numbers on a mountain bike.

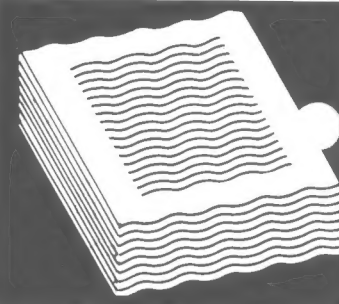
## Blood Donor Total No Measly Figure

Despite the measles, the Red Cross is happy with the results of its recent four-day blood clinic on campus.

In the April clinic 555 people offered their blood, and 503 were accepted. (Deferrals usually stem from temporary low iron levels in potential donors.) The average daily attendance was 250, with a nearly-identical deferral rate.

Red Cross officials had wondered how drastic an effect last month's measles vaccination would have on donations. A three-month waiting period is mandatory for all donors after measles vaccine. Lowest Red Cross projections expected only 100 units a day from the April clinic. "So we're really pleased with the turnout," says Edie Skoropad, Red Cross clinic consultant. □

## Currents



### Reception to Honor Henry Kreisel

The Department of Comparative Literature will hold a reception to honor Henry Kreisel's retirement on Wednesday, 6 May, at 4 p.m. in the Heritage Lounge, Athabasca Hall. Students, friends and colleagues of Dr. Kreisel are invited to attend. Contributions are most welcome and can be made by contacting Winnie Ng or Bev Ethier at 432-4926.

### Proghoff Workshop

A Proghoff Intensive Journal Second Level (depth contact, including journal dreamwork and process meditation) Workshop will be led by Sister Therese Craig (Secondary Education) at Strawberry Creek Lodge, 80 km southwest of Edmonton, 1 to 3 May. Room and board, \$75; tuition, \$90 (25 percent discount for seniors and students).

Prerequisite Level I.  
433-0876 or 436-0522.

### Volunteers Required

Volunteers (women: 21 years plus; men: 30 years plus) are required for 24-hour monitoring of pH in the distal esophagus. The goal is to establish normal control data.

Volunteers will be paid.  
Telephone Jarley Koo at 453-6512 or 453-5466.

## Successful Final PhD Oral Examinations

Name	Department	Final Thesis Title
Somsak Boonsathorn	Elementary Education	"Proficiency, and Reading Strategies in ESL"
Stephen Roy Downie	Botany	"A Biosystematic Study of <i>Arnica</i> subgenus <i>Arctica</i> "
Robert Ivars Grigjanis	Physics	"The Effective Action at Zero and Non-zero Temperature"
Ahmad K. Hegazy	Botany	"Perspectives on Autecology and Population Biology of Alpine Cushion Plants"
Franklin Winston Jenkins	Secondary Education	"A Taxonomy of Curricular Discourse"
Charles Henry Payne	Educational Administration	"Parents and Control of Elementary School Principal Work Behavior"
Marcel Polikar	Mining, Metallurgical and Petroleum Engineering	"Relative Permeability Measurements in Oil Sands"
Reyad Ilayan Sawafta	Physics	"Spin Excitation in s-d Shell Nuclei With Intermediate Energy Protons"
Helmut Klaus Harald Zinner	Educational Administration	"Equity of Direct Instructional Expenditures Among Academic Programs at Alberta's Two-Year Public Colleges"

## Symposium on Aging in Alberta Scheduled

The Centre for Gerontology will hold a Spring Symposium designed to explore "The Health Status and Needs of Older Albertans" (28 April, 9 a.m. to 4 p.m., 2-115 Clinical Sciences Building).

Mary Englemann, Director of the Senior Citizens' Secretariat, will open the proceedings with a talk on "Demography and the Needs of an Aging Population." Robert

Orford, Deputy Minister of Community and Occupational Health, will then discuss "Health Promotion and the Elderly."

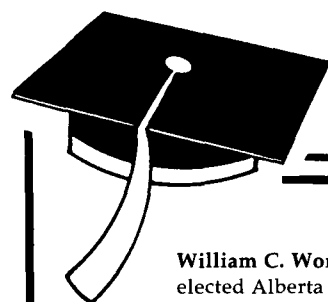
Following lunch, Gerry Bonham, Medical Officer of Health for the City of Calgary, will address "Physical Aspects of Aging" and Roger Bland (Psychiatry) will give his views on "Prevalence of Psychiatric Disorders in the

Elderly." At the final session, Elizabeth Donald (Home Economics) will speak on "Nutrition of the Elderly."

The cost is \$25, and more information and/or registration forms can be obtained from the Centre for Gerontology, B-03 Cameron Library, 432-5975. □

potential problems which may exist when the APS-5 is withdrawn from service. In discussion with a number of respondents, no long-term insurmountable situations were identified. However, plans calling for the APS-5 to be removed at the end of April have been deferred. The Linotronic 300 will be fully operational this month and on-line to Computing Services' mainframe computer. Access to the L-300 from Textform will be via PostScript, which is now in beta test mode. Access to the APS-5 via Textform will continue for the time being. Any overlapping situations can be accommodated with interim alternatives.

For further information, please call Earl Olson or Len Young at 432-4246. □



## Activities

**William C. Wonders** (University Professor) has been elected Alberta Visiting Professor at the Centre of Canadian Studies, University of Edinburgh, for the fall term 1987. The new program, funded by the

Government of Alberta, is intended to contribute a Western Canadian viewpoint to the development of Canadian Studies in Edinburgh . . . The Department of Music announces the creation of a new ensemble: Musicum Collegium. The ensemble, which will concentrate on medieval, renaissance and early baroque music, is available to students for credit.

Furthermore, singers and instrumentalists from the wider community are invited to audition. The first step is to call **Mitchell Brauner** at 432-2384 . . . **Carl Urion** (Educational Foundations) has received an award of \$70,000 from the International Development Research Centre for a study of 24 schools in Maharashtra, India. Teacher attitudes and student performance will be looked at . . . **L.A. Kosiński** (Geography) participated in a national meeting of academics organized by the Department of Employment and Immigration as part of a nation-wide consultation on immigration levels. He was subsequently appointed to the Advisory Committee of Academics on Demographic Aspects of Immigration . . . Library Science students and faculty hosted Career Day on 20 March . . . John Wiley and Sons has just published *Guide to Design Criteria for Bolted and Riveted Joints*, Second Edition, by **Geoffrey L. Kulak** (Civil Engineering) John W. Fisher and John H.A. Struik . . .

**Joseph Pivato** (Athabasca University) has been invited to hold the new MA Elia Chair in Italian-Canadian Studies at York University for 1987-88. The chair was established in 1985 to promote research in Italian-Canadian Studies. Dr. Pivato has an MA and PhD in Comparative Literature from the University of Alberta and is a research associate of the Department of Comparative Literature. He recently edited the book, *Contrasts: Comparative Essays on Italian-Canadian Writing*, (Guernica Editions, 1985) . . . **Andra P. Thakur**, part-time lecturer in the Departments of Anthropology and Educational Foundations, has received a grant from Alberta Cultural Heritage Foundation and the Secretary of State Department to study "Schooling and its Cultural Implications Among Minority Groups: A Study of Black Students in Alberta Secondary Schools" . . . **Z. Eisenstein** (Civil Engineering) was elected as a member of the Executive Council of the International Tunnelling Association at its general assembly held 22 to 25 March in Melbourne. The International Tunnelling Association is regarded as the top world organization in the field of tunneling engineering and underground structures. It contains 57 national societies and is affiliated with the United Nations.

## Printing Services Bidding Adieu to APS-5

In the 19 February issue of *Folio*, Printing Services requested input from Textform/APS-5 users to help determine the magnitude of

## Replenishment of GFC Standing Committees 1987

The terms of office of a number of staff members on GFC standing committees and bodies with membership elected by GFC will expire on 30 June 1987. During the coming weeks, the Nominating Committee will be seeking replacements for these members, and for those members whose terms of office might be interrupted by study leave during 1987-88. Vacancies will occur on the following Committees:

*GFC Executive Committee (nominees must be members of GFC)*  
*Academic Appeals Committee: Regular and Alternate members*  
*Academic Development Committee*  
*Admissions and Transfer Committee*  
*Computing Committee*  
*Department Chairmen Selection Committee: Panel of Members*  
*Facilities Development Committee*  
*Faculty Tenure Committees: Nominees must be tenured*  
*General Salaries and Promotions Committee*  
*Library Committee*  
*Planning and Priorities Committee*  
*The Senate*  
*Special Sessions Committee*  
*Committee for Improvement of Teaching and Learning*  
*Undergraduate Scholarship Committee*  
*Undergraduate Teaching Awards Committee*  
*Universities Co-ordinating Council*  
*University Disciplinary Panels*  
*University Professors Selection Committee*  
*Writing Competence Committee*  
*Writing Competency Petitions Committee: Alternates*

Membership is not restricted to members of GFC unless specified. The terms of office for staff members are for periods of up to three years, commencing 1 July 1987. The Nominating Committee will be pleased to hear from those who have suggestions for nominations or who would be interested in serving on the above committees. Those people are asked to communicate with Mrs. P. Plaskitt, Nominating Committee Coordinator, 2-5 University Hall (432-2715), who will be pleased to provide any further information. Alternatively, written nominations may be sent and should be accompanied by a *vita*.



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# Radical Reactions: Making It Easy to Do What's Difficult

An easier way of making some of the synthetic compounds used in drugs and insecticides has been largely ignored. But it has great possibilities.

There are only three ways of assembling atoms.

You can charge the atoms, and

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## Faculty Studies 1987-88

Applications for faculty studies (Cameron and Rutherford Libraries) for the 1987-88 academic year are now being accepted. Application forms and the guidelines for allocation are available from department offices or the Office of the Chief Librarian, 5-02 Cameron Library.

The closing date for applications is 30 April 1987.□

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## Adele Knowler-Werbicki Paintings FAB Gallery

Look in FAB's big west window and the two faces of *Caught* look back at you. Knowler-Werbicki's concerns are our inner states: fear of detection, blindness of faith among them. Sometimes she's in 1930s Germany (*Chez Bou Bou*, where the snakes are always on tap.) Other times, it's Raeburn's Scotland, but all fangs and Celtic hair. Scary, for small children.

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## Briar Craig Lithographs

Upstairs, Craig seems cool and calm by comparison. Likes the printed word, the technical challenges of making paper images of paper. Bashed cans, old newspapers, a crumpled Snickers wrapper. Keen eyes may even spot the name of an *Edmonton Journal* city editor down on the street. Both shows run until 21 April.□

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join them in an ionic reaction.

Or you can break one bond at the same time as you form another, creating a concerted reaction.

Or you can join the atoms while they are neutral. That's a radical reaction. When it's used to make rings of atoms, chemists call it radical cyclization.

This third method has largely been ignored by organic chemists, who tend to rely on the first two.

"But that's like trying to do carpentry with a chisel and hammer, and forgetting about the saw," says University of Alberta scientist Derrick Clive.

"Radical cyclization opens up huge possibilities for making medicines and insecticides. It makes chemists more powerful and they can do things that otherwise couldn't be done."

It was only four years ago that Clive, an organic synthetic chemist, began to recognize the power of these radical methods to increase the capacity of the chemist. Since then he has been working on developing radical cyclization techniques that can be commonly used. (Clive's is the only group in Canada working on the problem; in the U.S., two groups are similarly involved.)

To confirm that these "radical-based strategies" are particularly suitable for putting together complex molecular structures, Clive is working on synthesizing a unique compound, Fredericamycin A, that has extraordinary anti-tumor properties.

"The compound has a bizarre structure," says Clive. "There's no other known anti-cancer compound with a structure like it. Assembling the molecule presents problems for which the strategy of radical cyclization is very suitable."

He describes radical cyclization as "a revolution in organic chemistry." Although polymer chemists use radical reactions to create synthetics, organic chemists have largely ignored the process. "But it is often much simpler to assemble complex structures using radical cyclization," he points out. "And because it's simpler, it's cheaper, too."

Clive expects that the next editions of standard textbooks will include, for the first time, a chapter on radical cyclization.□

Reprinted from Research Report, published by the University's Office of Public Affairs.

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## Talks

### Plant Science

21 April, 4 p.m. Eric Allen, "An Electrostatic Theory of Spore Release." 811 General Services Building.

### Computing Science

22 April, 3:30 p.m. Balder von Hohenbalken, "Computational Geometry in Urban Economics." 619 General Services Building.

### Anatomy and Cell Biology

22 April, 4 p.m. Giorgio Innocenti, Institut d'anatomie normale, Lausanne, Switzerland, "Development and Plasticity of Cortical Connections." 6-28 Medical Sciences Building.

### Food Science

23 April, 2 p.m. Renee Fitts, Department of Applied Biological Sciences, Massachusetts Institute of Technology, "Effect of Missense Mutations on B-Lactamase Secretions." 553 General Services Building.

### Chemical Engineering

23 April, 3 p.m. Sunil L. Kokal, Department of Chemical and Petroleum Engineering, University of Calgary, "An Experimental Study of Two Phase Flow in Inclined Pipes." E342 Chemical-Mineral Engineering Building.

### Physics

24 April, 2 p.m. J.H. Page, Professor, University of Winnipeg, "Acoustic Phonon Localization in Sintered Metal Powders." V-121 Physics Building.

### Biochemistry

27 April, 4 p.m. Howard K. Schachman, Professor of Biochemistry and Molecular Biology, University of California, Berkeley, "From Allosteric to Site-Directed Mutagenesis: 20 Years with Aspartate Transcarbamylase." 2-27 Medical Sciences Building. Sponsored by AHFMR.

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## The Arts

### Exhibitions

#### McMullen Gallery

Until 24 April. "A Decade Plus." Walter C. Mackenzie Health Sciences Centre.

#### Bruce Peel Special Collections

Until 29 May. "Books Are/Books Are Not: Two Decades of Bookworks and Artists' Books, With Some Historical Precedents"—a colorful look at the remarkable things that have happened to books since the 1960s. Includes books that are wordless, altered, pop-up and fold-out. Hours: Monday and Friday—8:30 a.m. to 4:30 p.m.; Tuesday, Wednesday, Thursday—8:30 a.m. to 6 p.m.; Saturday—noon to 5 p.m.; Sunday—closed. B7 Rutherford South.

### Music

All events take place in Convocation Hall save for the exception noted. 18 April, 5 p.m. Junior Student Recital—Barbara Ritz, piano.

18 April, 8 p.m. Senior Student Recital—Kathleen Neudorf, soprano. 21 April, 8 p.m. Junior Student Recital—Darald Bantel, tenor. 23 April, 8 p.m. Faculty Recital—Alan Ord, bass-baritone. 24 April, 8 p.m. Students' Recital—performers are students from the class of Helmut Brauss. Buchana Hall, Alberta College. 28 April, 8 p.m. Monica Rist, organ—candidate for the Master of Music degree in Applied Music, Keyboard). 7 May, 8 p.m. Recital—Tanya Prochazka, cello and Janet Scott-Hoyt, piano.

## SUB Theatre

21 April, 8 p.m. "Shriekback." Tickets: BASS outlets and HUB and SUB information desks. 24 April, 2 p.m. U of A Hospital School of Nursing graduation ceremony. By invitation only. 432-6728. 25 April, 8 p.m. Edmonton Folk Music Festival presents "Jesse Winchester with guest Danny O'Keefe." 429-1899.

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## Positions

The University of Alberta is committed to the principle of equal opportunity in employment and encourages applications from all qualified people.

In accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.

### Academic

#### Librarian, Legal Resource Centre, Faculty of Extension

The University of Alberta invites applications for Librarian for the Legal Resource Centre. Responsibilities include over-all administration of the library, provision of public services, and supervision of technical services.

The successful candidate will have a degree in Library Science and several years progressive experience in library administration and service. Formal training in law or equivalent experience preferred. Experience in a public or school library setting or community service an asset. Experience in working with computers in a library context an asset.

Salary range: \$31,612 to \$40,764.

Applicants should send a current curriculum vitae to Lois Gander, Director, Legal Resource Centre, 10049 81 Avenue, Edmonton, Alberta T6E 1W7, by 15 June 1987.

### Support Staff

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 432-5201. Due to publication lead time and the fact that positions are filled on an on-going basis, these vacancies cannot be guaranteed beyond 10 April 1987. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR.

Accounts Clerk, Office of the Comptroller, (\$1,522-\$1,580) Technical Assistant (Trust), Medicine, (\$1,366-\$1,716) Technician I (Trust/Term), Foods and Nutrition, (\$1,580-\$2,027) Technician I/Technologist I (Trust), Medicine (Endo. and Metab.), (\$1,580-\$2,510) Electronics Technician I, Chemistry, (\$1,648-\$2,115)

For vacant Library positions, telephone 432-3339.

### Alberta Summer Institute For Petroleum Industry Development

#### Logistics Coordinator

Utilizing the resources of the International Briefing Centre at the University of Alberta, the Logistics Coordinator will be responsible for the safe and orderly movement of people, goods and equipment during the English for Special Purposes program and the Alberta Summer Institute for Petroleum Industry Development.

**Qualifications:** Applicants for the Coordinator position should have the following qualifications:  
Excellent communication skills;  
Ability to work in a team setting;  
Good organizational skills and experience;  
Safe driving habits and a satisfactory "Drivers Abstract" from a license-issuing Motor Vehicles Branch;  
Neat appearance;  
Ability to perform tasks with a minimum of supervision;  
Familiarity with Edmonton and the University campus is an asset;  
Familiarity with word processing/computers an asset.

**Salary:** \$1,750 per month. 27 April to 21 August 1987.

**Application procedure:** Submit résumé by 20 April 1987 to: The International Briefing Centre, 602 Students' Union Building, University of Alberta, Edmonton, Alberta T6G 2J7.

#### Technical Coordinator

Using the resources of the International Briefing Centre at the University of Alberta, the Technical Coordinator will implement the technical program. Responsibilities include ensuring that all aspects of the technical program are coordinated and implemented effectively.

**Qualifications:** Same as above.  
Engineering/technical background preferred.

**Salary:** \$1,750 per month. 5 May to 21 August 1987.

**Application procedure:** Submit résumé by 20 April 1987 to: The International Briefing Centre, 602 Students' Union Building, University of Alberta, Edmonton, Alberta T6G 2J7.

#### Cultural Coordinator

Utilizing the resources of the International Briefing Centre at the University of Alberta, the Cultural Coordinator will be responsible for implementing a comprehensive program of cultural activities during the English for Special Purposes program and the Alberta Summer Institute for Petroleum Industry Development.

**Qualifications:** Same as for Logistics Coordinator.

**Salary:** \$1,750 per month. 27 April to 7 August 1987.

**Application procedure:** Submit résumé by 20 April 1987 to: The International Briefing Centre, 602 Students' Union Building, University of Alberta, Edmonton, Alberta T6G 2J7.

## Advertisements

#### Accommodations available

Rent - University area, one-bedroom suite, clean, quiet, balcony. \$350. 433-6024.

Sale - Lakefront, log cabin. Muriel Lake. 30'x32', three bedrooms, loft, boathouse, clay tennis court, garden. \$94,500. Phone 433-4870.

Sale - North Windsor Park. Three-bedroom bungalow, fireplace, two bedrooms in developed basement. Large lot across from park. \$141,500. 439-9376.

Rent - One-bedroom, fully furnished apartment. Available 10 May-10 September. \$325/month. Mature student or professor preferred. 488-5932 (evenings), 429-5712 (days).

Sale - By owner. Semi-bungalow, Belgravia district, walking distance to University. 436-5174.

Rent - Two-bedroom, furnished house. Developed basement. Near Southgate. Fifteen minutes to campus. One year from 1 June. \$550. 432-5309, 435-4066 (after 6:30 p.m.).

Rent - May, June, July. Comfortable basement suite in family home, separate entrance, one block from University. Two bedrooms, lounge, bathroom, kitchen/utility area. \$300/month. Utilities included. 433-4618.

Rent - North Windsor Park. Three-bedroom bungalow. Fireplace, developed basement. One year starting 1 July. 432-5388, 432-3051, 461-8185.

Rent - St. Albert. Furnished bungalow available 15 August till 15 August 1988. \$750/month. Three bedrooms, garage, appliances. 438-1044.

Rent or exchange - Vancouver Island, furnished, three-bedroom home. Half acre, ocean view. For 2-3-bedroom home, furnished, near U of A, available 20 August 1987-10 May 1988. 438-1044.

Rent - Riverbend. Immaculate, furnished, split-level home. One-year lease, 1 July possession. \$1,300/month. Western Relocation, 438-1044.

Rent - Two- or three-bedroom furnished house, from 1 Sept 1987-30 April 1988 (approximately). Yard essential. 438-1044.

For rent - Large, furnished and equipped house, walking minutes from campus and hospital. Available May. 432-7865.

Rent - One-bedroom condominium, 118 St. Jasper Avenue. Fireplace, balcony, heated parking, washer, dryer, dishwasher, etc. \$475 including condo fee. 432-2643, 437-4937.

Sublet - Main floor of house. May through August. Call 433-5393 evenings, weekends.

Rent - During University of Alberta Summer Session, three-bedroom, furnished house. Next to campus. 3 July-15 August. \$800 for session. (403) 436-3069.

Sale - Two-bedroom bungalow on 1 1/2 lots. Renovated, new furnace, sauna, separate suite in basement, fifteen-minute walk to University. \$79,500. Phone 438-4933.

Rent - Small house in Norwood. Well-kept, garage and garden. \$450/month. 470-0111 evenings.

For rent - Large bachelor, \$340-\$355. One bedroom, \$395-\$398. Two bedrooms, \$495-\$498. Includes all utilities. Minimum four months lease, discount for one-year lease. Appointment necessary. Phone 433-1676.

Sale - Grandview. \$139,000. 1,740', open beam, three-bedroom home with main floor family room, den, laundry, fireplace, attached double garage, south garden. Eleanor Duncan, Royal LePage, 434-7368, 438-4700.

Sale - Quality, three-bedroom condominium, 1,300', three baths. Finished basement, central vacuum, dishwasher, garburetor. Soundproof, common walls. Near University. With or without furniture. 437-0890.

For rent - 1 May, five-bedroom house in Windsor Park area. One block west of

campus. Call Karim, 444-6693.

Sale - Hampton Village. Three bedrooms, fireplace, 700' unistone patio. Custom drapery. Also, two-bedroom condominium across from campus, two baths, sunshine ceiling. Ronn Bence, Royal LePage Real Estate, 438-5100, 436-6296.

Sale - Grandview. Well-built home. Large, south yard. Super location across from park. Chris Tenove, 433-5664, 436-5250. Spencer Realtor.

Sale - North Windsor Park. 1 1/2 storeys, well-kept home. Hardwood floors. Large, west lot. Chris Tenove, 433-5664, 436-5250. Spencer Realtor.

Sale - Westmount. Semi-bungalow. Hardwood floors. Good location. Chris Tenove, 433-5664, 436-5250. Spencer Realtor.

Sale - 70 Acres with 2,300' custom-built bungalow. Adjoins south city limits. For details, call Chris Tenove, 433-5664, 436-5250. Spencer Realtor.

Sale - Miquelon lakefront lots. \$6,000. Chris Tenove, 433-5664, 436-5250. Spencer Realtor.

Sale - City residential lots. One ravine lot. 1.33 acres. Price \$39,750 up. Chris Tenove, 433-5664, 436-5250. Spencer Realtor.

Sale - Naturalist's dream home. 1,600' log home. Nestled in 40 acres treed seclusion. Abundant birds, wildlife. Vendor transferred, must sell. For more information, call Jerry Willes Real Estate, 433-9406, 435-6878.

Rent - Riverbend. 1,800'. Well-located in excellent area. Three-bedrooms, family room, double attached garage, fireplace. Available 30 June, one-year lease. \$1,100/month. References. Call Janie Bodner, 434-6385.

Rent - University area bungalow. Finished basement. Double garage. Large, fenced yard. Occupancy 1 May. Rent \$750. Call 435-6878.

#### Accommodations wanted

Family of four (includes two teenage children), needs apartment or house. Beginning of July to third week in August 1987 (six weeks). Please phone 432-5507 or 432-3637.

Lawyer requires furnished one or two-bedroom accommodation, from September 1987 to September 1988. 455-9505.

Vet. student, wife, and one child require furnished accommodation, 1 May-15 August. Will house-sit. Call Olive, 432-6258 (days) or 437-6739 (evenings).

Mature, female graduate student needs quiet study-bedroom for two months, beginning as soon as possible (furnished or unfurnished). Easy access to University essential. 432-4632 or leave message at 432-3258.

Visiting scholar on study leave wishes to rent fully furnished, three-bedroom house in University area from 1 August 1987 for one year. Call 432-5590 (Law).

#### Automobiles and others

1983 Chrysler Fifth Avenue. Low mileage, excellent condition. 437-0725.  
1985 Fiero, black, five-speed, power windows, sunroof, stereo cassette, 35,000 km. \$8,600. Rosemary, 432-2882 (days), 431-1876 after 6 p.m.

#### Goods for sale

Cash paid for appliances, 432-0272.  
12-speed bicycle, 18", 1983, Norco. Alloy wheels, anatomical seat. \$200. 433-4715.

One checkered couch (hide-a-bed), with matching chair. Excellent condition. 439-0766.

Freezer upright, 10 cu. ft., like new. Range top four-burner. 435-2919 evenings.

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Share a nanny in the University area.

Couple with small baby hoping to share the cost of a live-in nanny, four blocks from the University. Phone 437-0860, 432-4367.

Tax returns - U.S. or Canadian. Eberlein Consulting, 434-0563.

Typist wanted: Familiar with MTS and thesis format. Assist in completing PhD dissertation. Call 439-7154.

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Looking for morning kindergarten? Belgravia School, 11605 74 Avenue, offers top quality programs in small, secure setting. Registrations accepted in kindergarten through grade six. Call 435-5560 for information.

Will do house cleaning, spring cleaning, yard work. \$8/hour. References provided. Phone Reta, 477-5728.

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